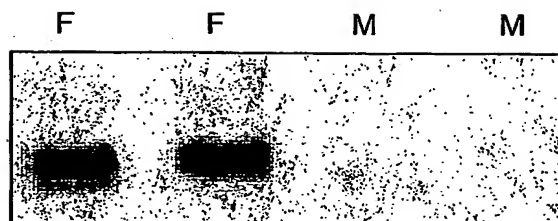
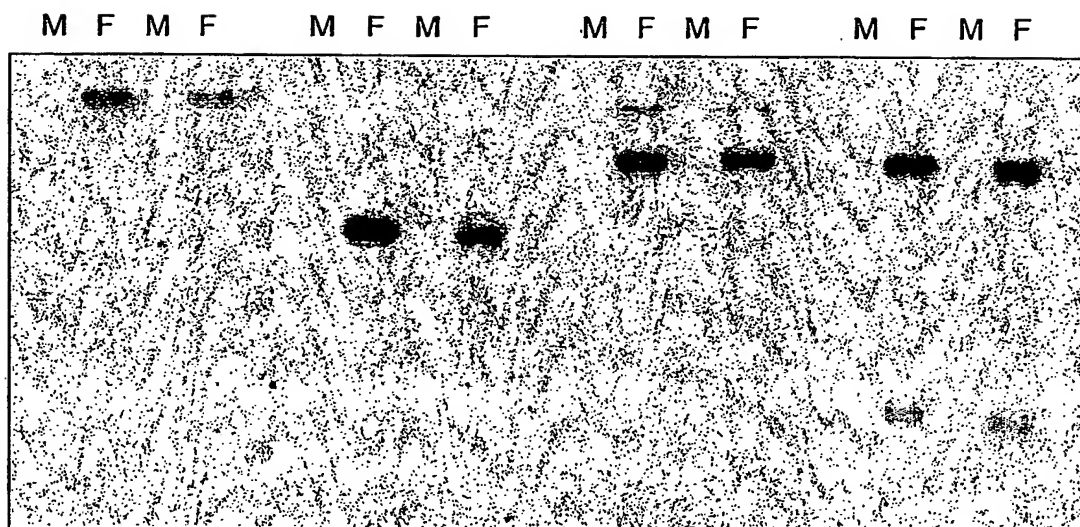


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Day 4.5 whole embryo

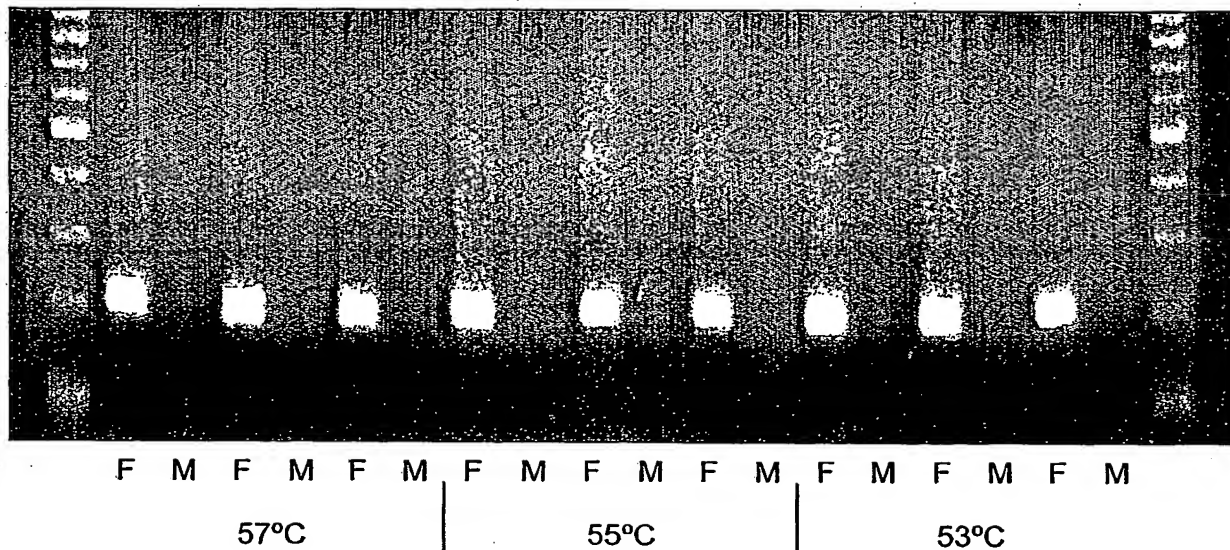
FIG. 1



Southern analysis

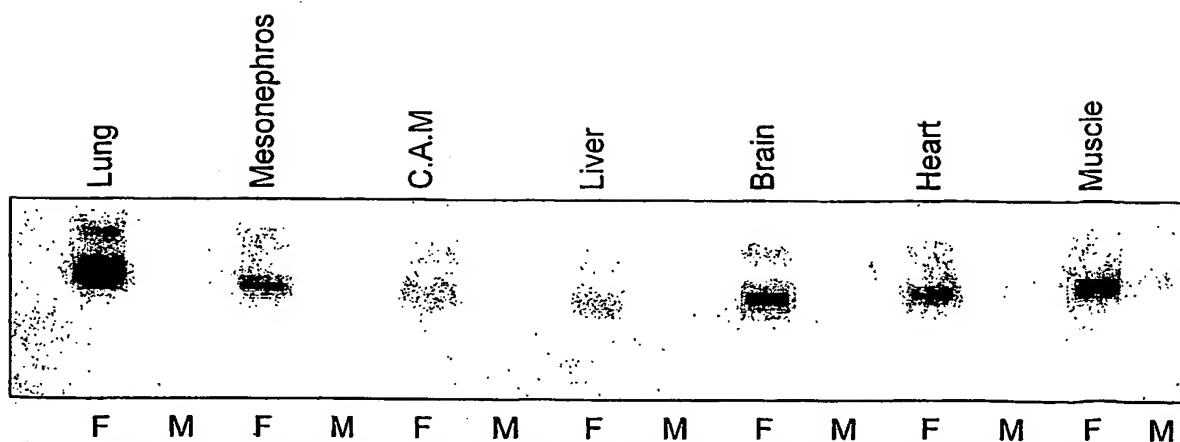
FIG. 2

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W-specific PCR

FIG. 3

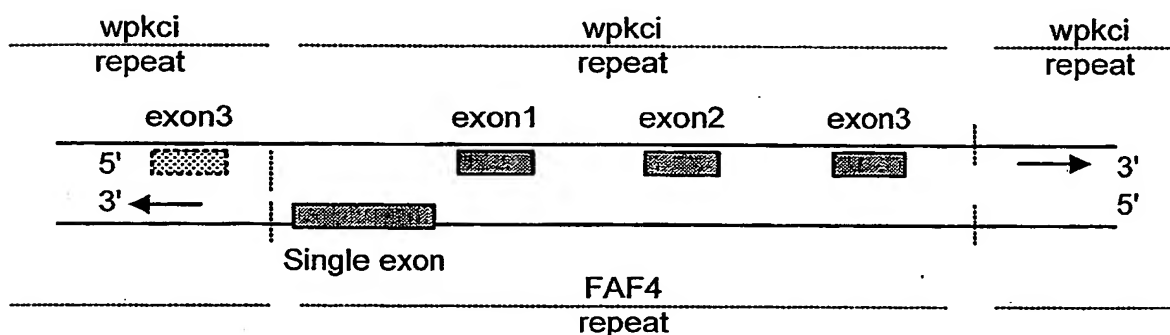


Northern analysis of FAF mRNA expression in the tissue of developing chicken embryos at day 11.5: lung, mesonephros, chorioallantoic membrane (CAM), liver, brain, heart and muscle isolated from male (M) and female (F) embryos

FIG. 4

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Position of the FAF4 796 bp sequence in relation to the w-pkci gene

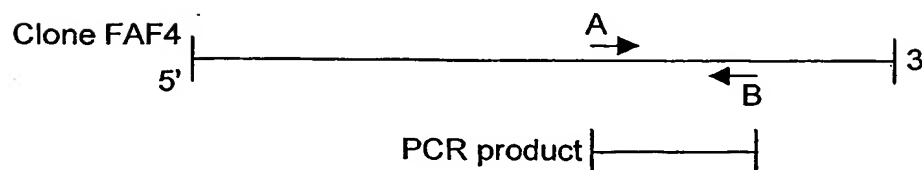


Forward primer (A) = AGAATAAACGCCCCCTCGATT

Reverse primer (B) = CAGGTCTCTTTCTCGGTCG

Female-specific PCR primers

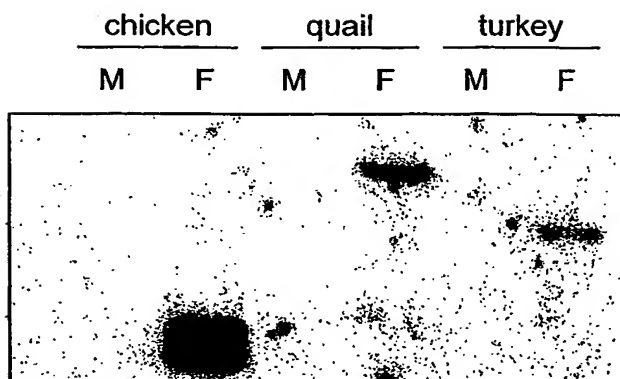
FIG. 5(a)



Relative position of the PCR 204 bp product with respect to the FAF4 796 bp sequence clone

FIG. 5(b)

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Species blot

FIG. 6

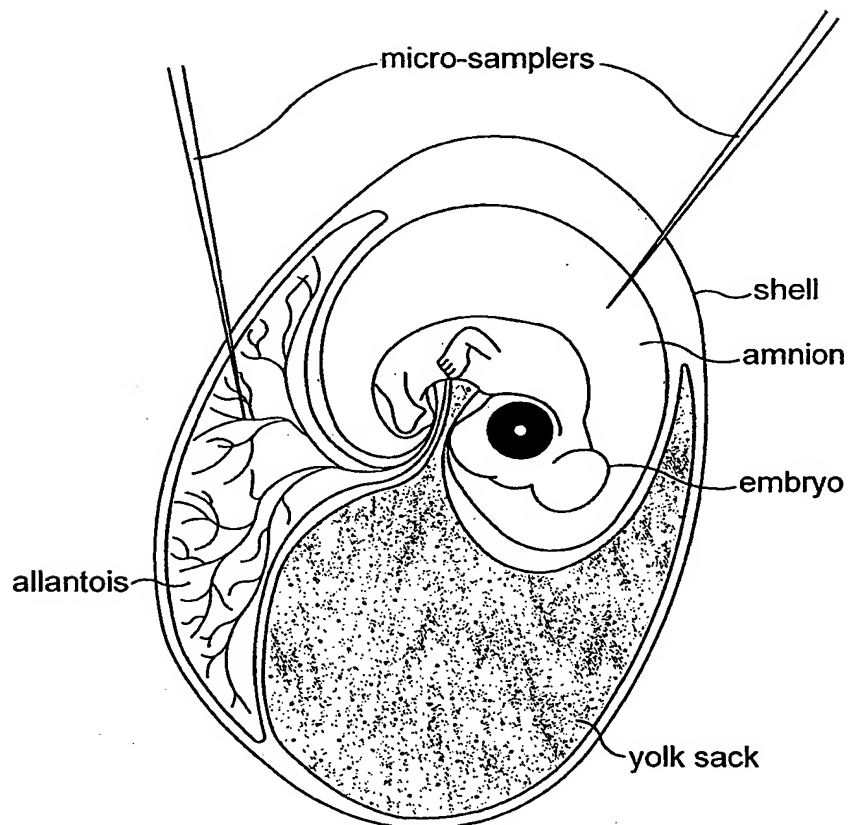


FIG. 7

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FAF1

1 AGTGCCGTTA CTATGAGCAA CCCAAGGAGA ACCAGACAGT ATATATATAT  
51 GTGTATGACT CTGCAAAACC TTTGTAGCGC GCATTTTCCC TTGCTGTGTT  
101 TTCCTTCCGC CTGTGATCGA CCGAGAAAGA GAACCTGCCC CTCTACCCCT  
151 GCTTCCAACC AGAATCATGA AACACTGTCA CACTGCGGTG GTAACCATCT  
201 CTGCATTCCCT GTAACAAATC CTTGCTTTTC TTTCTGTCTT TTTACTATTG  
251 CTTTCGTCAT CCCACCTCCC ATCCCCCGGC CTAGCTAACC AAAACTTTCT  
301 ACAATAAACC GGTGTTGGGC

FIG. 8

FAF2

1 GGCGCTGGGG GCTTTTGGT GCCGATCCCT CCCGTCAAAT GGCCGTCAAA  
51 TGTTGACGGG GCAGGCCAGG AGTTTGCCAT CTTTGATGA AGGGACAGGC  
101 AACTCGGGGA GAGTGCAAGG ATGTTGCTAG CATGCGCAGG GAGAAAATTC  
151 GACAGGCCAA AGCCCAGCAC GACCTTAATA TGGCCGCCAT TGTTTGAGAT  
201 GATTAAAACT ATGTTTTTAC GAACATATTA ATAAGAGCAA GAGGAGGGCC  
251 AAGGAGAATC TCCCTTCTTT ATTCAACGCG GTGGGGAACA TCACCATCGA  
301 GGAGGAGGGA AAGGCTGAAG TTCCCAACGC CTTCTTCACT TCTGGCTTTA  
351 GCAGTGAGAC CTGCTATCCC CAGGGTACTC AGCCCCCTGA GCTGGAAGAC  
401 GGGGCCGGGG AGCAGAATAA ACGCCCCTCG ATTCCCAGTG CCTTCTTTAC  
451 TTCTGTCTGT TTCTGACTGT TGCACCTGTG CTGGACGTGC CGTTACTATG  
501 AGTAACCCAA GGAGAACCGG ACAGTATATA TATGTATGGA CCCTGCAAAA  
551 ACTTTGCGCG CGCTTTTCCC TTGTTGTGTT TTCCTTCCGC CTGTGATCGA  
601 CCGAGAAAGA GAACCCGCCC CCCCCCGCT TCCAACCGGA ATCATGAAAC  
651 ATTGTCACAC TGCGGTGGTA ACCATCTCTG CATTCTGTG ACAAATCCTT  
701 GCTTTTCTTT TCTGTCTTTT CACTATTGCT TTCGTCATCC CACCTCCCAT  
751 CCCCAGGCCT AGCTAACCAA AACGTTTTAC AATAAACCGG TTGGGC

FIG. 9

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FAF3

```
1  CGGTCAAATG GCCGTCAAAT GTTGGCGGGG CAGGCCAGGA GTTTGCCATC
51  TTTGGATGAA GGACGGGCAA CTCGGGGAGA GTGCCAGGAT GTTGCTAGCA
101 TGCGCAGGGA GAAAATTCTGA CAAGCCAAAG CCCAGCAAGA CCTTAATCTG
151 GCCGCCATTG TTCGAGATGA TTAAACAAT GTTTTACGA ACGTATTAGT
201 AGCAAGAGGA GGGCCAAGGA GAATCTCCCT TCTTTATTCG ACGCGGTGGG
251 GAACATCACC ACCGAGGAGG AGGAAAAGGC TGAAGTTCTC AACGCCTTCT
301 TCACTTCTGT CTTTAGCAGT GAGACCAGCT ATTCTCAGGG TACTCAGCCC
351 CCTGAGCTGG AAGACGGGGC CGGGGAGCAG AATAAACGCC CCTCAATTCC
401 CAGTGCCTTC TTTACTTCTG TCTGTTCTGA CTGTTGCACC GGTGCTGGAC
451 GTGCCGTTAC TATGAGCAAC CCAAGGAGAA CCAGACAGTA TAGATATATA
501 TATATGTATG GACTCTGCAA AACTTTTGT GCGCGCTTTT CCCTTGCTGT
551 GTTTTCCTTC CGCCTGTGAT CGACCGAGAA AGAGAACCTG CCCCCCACC
601 CCTGCTTCCA ACCAGAATCG TGAAACATTG TCACACTGCG GTGGTAACCA
651 TCTCTGCATT CCTGTAACAA ATCCTTGCTT TTCTTTTCTG TCTTTTCACT
701 ATTGCTTTCG TCATCCCGCC TCCCATCCCC AGGCCTAGCT AACCAAACT
751 TTCTACAATA AACCGGTTGG GC
```

FIG. 10

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FAF4

1 GGCCTGGGG GCTTTTTGGT GCCGATCCCT CCCGTCAAAT GGCCGTCAAA  
51 TGTTGACGGG GCAGGCCAGG AGTTTGCCAT CTTTGATGA AGGGACAGGC  
101 AACTCGGGGA GAGTGCAAGG ATGTTGCTAG CATGCGCAGG GAGAAAATTC  
151 GACAGGCCAA AGCCCAGCAC GACCTTAATA TGGCCGCCAT TGTTTGAGAT  
201 GATTAAAACT ATGTTTTTAC GAACATATTA ATAAGAGCAA GAGGAGGGCC  
251 AAGGAGAATC TCCCTTCTTT ATTCAACGCG GTGGGGAACA TCACCATCGA  
301 GGAGGAGGGA AAGGCTGAAG TTCCCAACGC CTTCTTCACT TCTGGCTTTA  
351 GCAGTGAGAC CTGCTATCCC CAGGGTACTC AGCCCCCTGA GCTGGAAGAC  
401 GGGGCCGGGG AGCAGAATAA ACGCCCCCTCG ATTCCCAGTG CCTTCTTTAC  
451 TTCTGTCTGT TTCTGACTGT TGCACCTGTG CTGGACGTGC CGTTACTATG  
501 AGTAACCCAA GGAGAACCGG ACAGTATATA TATGTATGGA CTCTGCAAAA  
551 ACTTTGCGCG CGCTTTTCCC TTGTTGTGTT TTCCTTCCGC CTGTGATCGA  
601 CCGAGAAAGA GAACCTGCCC CCCCCCGCT TCCAACCGGA ATCATGAAAC  
651 ATTGTCACAC TCGGTGGTA ACCATCTCTG CATTCTGTG ACAAATCCTT  
701 GCTTTTCTTT TCTGTCTTTT CACTATTGCT TTCGTCATCC CACCTCCCAT  
751 CCCAGGCCT AGCTAACCAA AACGTTTAC AATAAACCGG TTGGGC

FIG. 11

## FAF5

```
1  CGCAACGGGC GCTCGTTCCA GAGGGCCTGC GAGCGCGCTA GGGTGGGGGA
51  GGGGTGGGAC GGGAGGGCAA GGAAGAATC GCGCGACGCG CAGCAAAGCC
101 GCGGCTACCT CCTCGTCCAC AACGGCTCCT CCTCGCGGAT AACGTTGGCG
151 GAGAACTCCT GGCGGGCGAC TTTTCCCAAG AGAGCGGCGC CACCGCGCCA
201 GGCGGCCGGC GACCTAACGA TCCCGCCGGC CATGACGGCG CCCGCTCGCT
251 ACAACACTCC CTCAGCCCCA AACCTCCCCA GCACGGCTCA GCATGGCTCA
301 GCACGGCTCG GCTCGCCTCG GCTCGCCTCG GCCCGGTCCC GCCCTCGGCG
351 GCGCTCATTG GGCCGACAGA GCGCCGCGGC CGTTTCCGCG CCTCGGTTGG
401 CTGTCTCGCC TGCCCTTTAA GCTTGTCCCC GCCCTGTAGG CGGCTCCGCT
451 CCCGTCGGCC CGGTGCTTAT CGGGGCTCAG GGAATTAGGC GCTGGGGGCT
501 TTTTGGTGCC GATCCCTCCC GTCAAATGGC CGTCAAATGT TGACGGGGCA
551 GGCCAGGAGT TTGCCATCTT TGCATGAAGG GACAGGCAAC TCGGGGAGAG
601 TGCAAGGATG TTGCTAGCAT GCGCAGGGAG AAAATTCGAC AGGCCAAAGC
651 CCAGCACGAC CTTAATATGG CCGCCATTGT TTGAGATGAT TAAACTATG
701 TTTTACGAA CATATTAATA AGAGCAAGAG GAGGGCCAAG GAGAATCTCC
751 CTTCTTTATT CAACGCGGTG GGAACATCA CCATCGAGGA GGAGGGAAAG
801 GCTGAAGTTC CCAACGCCTT CTTCACTTCT GGCTTTAGCA GTGAGACCTG
851 CTATCCCAG GGTACTCAGC CCCCTGAGCT GGAAGACGGG GCCGGGGAGC
901 AGAATAAACG CCCCTCGATT CCCAGTGCCT TCTTTACTTC TGTCTGTTTC
951 TGA CTGTTGC ACCTGTGCTG GACGTGCCGT TACTATGAGT AACCCAAGGA
1001 GAACCGGACA GTATATATAT GTATGGACTC TGCAAAACT TTGCGCGCGC
1051 TTTTCCCTTG TTGTGTTTTT CTTCCGCCTG TGATCGACCG AGAAAGAGAA
1101 CCTGCCCCC CCCGCTTCC AACCGGAATC ATGAAACATT GTCACACTGC
1151 GGTGGTAACC ATCTCTGCAT TCCTGTAACA AATCCTTGCT TTTCTTTTCT
1201 GTCTTTTCAC TATTGCTTTC GTCATCCAC CTCCCATCCC CAGGCCTAGC
1251 TAACCAAAC GTTTTACAAT AAACCGGTTG GGC
```

FIG. 12



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## TURKEY FAF REGION

1 TGCCGTTACT ATGAGCAACC CAAGGAGAGC CAGACAGTGT ATATATGTAT  
 51 GGA CTCTGCA AAAACTTTGT GCGCGCTATT CCCTTGTTGT GTTTTCCTTC  
 101 CGCCTGTGAT CGACCGAGAA AGAGAACCTG CACCCCCCAG CCCCCTGCC  
 151 AACCAGACTC ATGAAACATT GTGACACTGC GGTGGTAACA ATCTCTGCCT  
 201 TCCTGTAACA AATCCTCGCT TTTCTTTTCT GTCTTTTAC TATTGCTTTC  
 251 TTCGTCCCAC CTCCCATCCC CAGGCCTAGC TAACC

FIG. 13

## QUAIL FAF REGION

1 ACTAGTGATT GCCGTTACTA TGAGCAACCC AAACAGTGGA CAGTGTATAT  
 51 ATAAGGGCTG CAAAAATAAG AGCATATGAT TTCCCTTGTA TTTTCCTTCT  
 101 GCCTGTGATC GGCCAAGAAA GAGGGAGAGA ATTGACAGCC TGCACTGCCT  
 151 CTGCTGACCA GACTCATGGA AACTGTGCAT ACTGCAGTGA TAACTATCTC  
 201 TGCATTCCCTA TAACAAACCC TTGCTTTTAT TTTCTTTCTT TTTACTATCA  
 251 TTTTCTTCAT CCCACCTCCT GTCCCCAGGC CTAGCTAACC AATC

FIG. 14

## FAF1

5'3' Frame 1

ORF1

Met S N P R R T R Q Y I Y M C M T L Q N L C S A H F P L L C F P S A C  
 D R P R K R T C P S T P A S N Q N H E T L S H C G G N H L C I P V T N  
 P C F S F C L F T I A F V I P P P I P R P S Stop

5'3' Frame 2

ORF2

Met K H C H T A V V T I S A F L Stop

Putative ORFs for isolated chicken FAF clones

FIG. 15 (a)

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FAF2

5'3' Frame 1

ORF1

Met L L A C A G R K F D R P K P S T T L I W P P L F E M I K T M F L R  
T Y Stop

ORF2

Met Y G P C K N F A R A F P L L C F P S A C D R P R K R T R P P P A S  
N R N H E T L S H C G G N H L C I P V T N P C F S F L S F H Y C F R H  
P T S H P Q A Stop

5'3' Frame 2

ORF3

Met L T G Q A R S L P S L H E G T G N S G R V Q G C C Stop

ORF4

Met D P A K T L R A L F P C C V F L P P V I D R E R E P A P P P L P T  
G I M K H C H T A V V T I S A F L Stop

5'3' Frame 3

ORF5

Met A V K C Stop

ORF6

Met K G Q A T R G E C K D V A S M R R E K I R Q A K A Q H D L N M A A  
I V Stop

ORF7

Met S N P R R T G Q Y I Y V W T L Q K L C A R F S L V V F S F R L  
Stop

FIG. 15 (b)

FAF3

5'3' Frame 1

ORF1

Met L A G Q A R S L P S L D E G R A T R G E C Q D V A S M R R E K I R  
Q A K A Q Q D L N L A A I V R D D Stop

ORF2

Met D S A K T F V R A F P L L C F P S A C D R P R K R T C P P T P A S  
N Q N R E T L S H C G G N H L C I P V T N P C F S F L S F H  
Y C F R H P A S H P Q A Stop

5'3' Frame 2

ORF3

Met A V K C W R G R P G V C H L W M K D G Q L G E S A R M L L A C A G  
R K F D K P K P S K T L I W P P L F E M I K T M F L R T Y Stop

5'3' Frame 3

ORF4

Met S N P R R T R Q Y R Y I Y M Y G L C K N F C A R F S L A V F S F R  
L Stop

FIG. 15 (c)

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## FAF4

5'3' Frame 1

## ORF1

Met Y G L C K N F A R A F P L L C F P S A C D R P R K R T C P P P A S  
N R N H E T L S H C G G N H L C I P V T N P C F S F L S F H Y C F R H  
P T S H P Q A Stop

ORF2 - same as FAF2, ORF1.

5'3' Frame 2

## ORF3

Met D S A K T L R A L F P C C V F L P P V I D R E R E P A P P P L P T  
G I M K H C H T A V V T I S A F L Stop

ORF4 - same as FAF2, ORF3

ORF5 - same as FAF2, ORF5

ORF6 - same as FAF2, ORF6

ORF7 - same as FAF2, ORF7

FIG. 15 (d)

## FAF5

5'3' Frame 1

## ORF1

Met T A P A R Y N T P S A P N L P S T A Q H G S A R L G S P R L A S A  
R S R P R R R S L G R Q S A A A V S A P R L A V S P A L Stop

ORF2 - same as FAF2, ORF5

ORF3 - same as FAF2, ORF6

ORF4 - same as FAF2, ORF7

5'3' Frame 2

## ORF5

Met A Q H G S A R L G S P R P G P A L G G A H W A D R A P R P F P R L  
G W L S R L P F K L V P A L Stop

ORF6 - same as FAF2, ORF1

ORF7 - same as FAF4, ORF1

ORF8 - same as FAF2, ORF3

ORF9 - same as FAF4, ORF2

FIG. 15 (e)

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